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# THE Fats and Oils SITUATION

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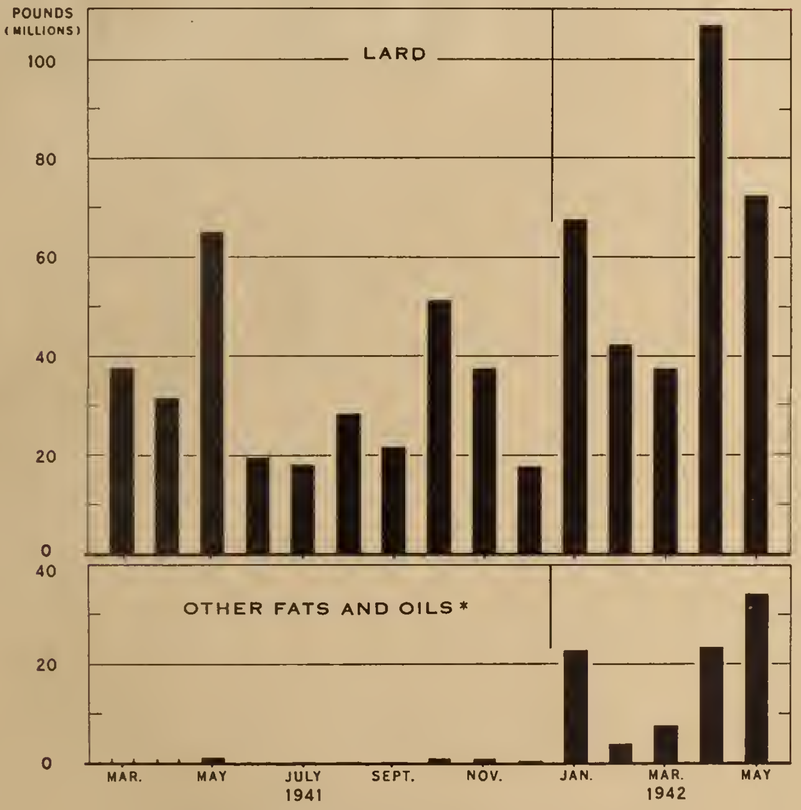
SOAP AND GLYCERIN SITUATION, 1941 AND 1942

GOVERNMENT PURCHASES OF LARD AND OTHER FATS AND OILS FOR LEND-LEASE AND DOMESTIC DISTRIBUTION PROGRAMS, MARCH 1941-MAY 1942



DATA FROM A. M. A.
* INCLUDES LINSEED OIL, MARGARINE, BUTTER, OLEO OIL, EDIBLE TALLOW, SHORTENING, VEGETABLE SALAD OIL, AND FISH-LIVER (VITAMIN A) OIL.

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In 1941, 330 million pounds of fats and oils were purchased by the Agricultural Marketing Administration, chiefly for lend-lease purposes. During the first 5 months of 1942 an additional 416 million pounds were bought. Present indications point to total purchases this year in excess of 1 billion pounds. (For data see table 2.)

Table 1.- Wholesale price per pound of fats and oils at specified markets, and index numbers of prices, May 1940 and 1941, March-May 1942

PRICES

| Item | May |  | 1942 |  |  |
|---|---|---|---|---|---|
|  | 1940 | 1941 | March | April | May |
|  | Cents | Cents | Cents | Cents | Cents |
| Butter, 92-score, Chicago | 26.4 | 34.7 | 34.4 | 37.2 | 37.3 |
| Butter, 92-score, New York | 27.6 | 35.5 | 34.9 | 37.9 | 37.8 |
| Oleomargarine, dom. veg., Chicago | 15.0 | 14.5 | 19.0 | 19.0 | 19.0 |
| Compounds (animal and veg. cooking fats), Chicago | 9.5 | 13.0 | 17.0 | 17.0 | 17.0 |
| Lard, loose, Chicago | 5.0 | 8.6 | 11.4 | 11.4 | 11.4 |
| Lard, prime steam, tierces, Chicago | 5.6 | 9.5 | 12.7 | 12.7 | 12.6 |
| Lard, refined, cartons, Chicago | 6.4 | 9.8 | 13.5 | 15.0 | 14.6 |
| Oleo oil, extra, tierces, Chicago | 7.0 | 9.8 | 13.0 | 13.0 | 13.0 |
| Oleostearine, bbl., N.Y. | 6.0 | 9.6 | 10.5 | 10.5 | 10.5 |
| Tallow, edible, Chicago | 4.7 | 8.2 | 9.8 | 9.8 | --- |
|  |  |  |  |  |  |
| Corn oil, crude, tanks, f.o.b. mills | 5.9 | 9.9 | 12.8 | 12.8 | 12.8 |
| Corn oil, refined, bbl., N.Y. | 8.8 | 12.6 | 15.5 | 15.5 | 15.0 |
| Cottonseed oil, crude, tanks, f.o.b. S. E. mills | 5.7 | 9.2 | 12.6 | 12.6 | 12.7 |
| Cottonseed oil, p.s.y., tank cars, N.Y. | 6.4 | 10.5 | 14.0 | 14.0 | 14.1 |
| Peanut oil, crude, tanks, f.o.b. mills | 5.9 | 9.5 | 13.0 | 13.0 | 13.0 |
| Peanut oil, dom. refined, bbl., N.Y. | 9.2 | 12.5 | 16.9 | 17.0 | 17.0 |
| Soybean oil, crude, tank cars, midwestern mills | 5.0 | 8.7 | 11.8 | 11.8 | 11.8 |
| Soybean oil, dom., crude, drums, N. Y. | 7.1 | 10.4 | 13.0 | 13.0 | 13.0 |
| Soybean oil, refined, drums, N.Y. | 8.0 | 11.1 | 14.2 | 14.2 | 14.2 |
|  |  |  |  |  |  |
| Babassu oil, tanks, f.o.b. mills, Pacific Coast | --- | 9.2 | --- | 10.7 | 10.7 |
| Olive oil, edible, drums, N.Y. | 25.9 | 63.7 | 75.7 | 75.7 | 72.7 |
| Olive oil, inedible, drums, N.Y. | 15.0 | 47.5 | 59.3 | 59.3 | 58.3 |
| Olive-oil foots, prime, drums, N.Y. | 8.5 | 14.8 | 19.8 | 19.8 | 19.5 |
| Palm oil, Niger, crude, drums, N.Y. 1/ | 7.5 | 9.0 | 12.2 | 12.0 | 12.0 |
| Rape oil, drums, N.Y. | 14.6 | 12.2 | 15.5 | 15.5 | 15.5 |
| Rape oil, blown, drums, N.Y. | 17.4 | 17.0 | 18.2 | 18.2 | 18.2 |
| Teaseed oil, crude, drums, N.Y. | 12.5 | 18.6 | 30.0 | --- | --- |
|  |  |  |  |  |  |
| Tallow, inedible, Chicago | 4.2 | 7.5 | 9.3 | 9.3 | 9.3 |
| Grease, A white, Chicago | 4.2 | 7.6 | 9.6 | 9.6 | 9.6 |
| Menhaden oil, crude, tanks, f.o.b. Baltimore | 4.6 | 6.7 | 8.9 | 8.9 | 8.9 |
| Sardine oil, crude, tanks, Pacific Coast | 5.6 | 7.3 | 8.9 | 8.9 | 8.9 |
| Whale oil, refined, bleached winter, drums, N.Y. | 9.5 | 9.9 | 11.1 | 11.1 | 11.1 |
|  |  |  |  |  |  |
| Linseed oil, raw, tank cars, Minneapolis | 10.0 | 9.9 | 12.4 | 13.1 | 13.1 |
| Linseed oil, raw, drums, carlots, N.Y. | 10.6 | 10.9 | 13.4 | 14.2 | 14.2 |
| Perilla oil, drums, N.Y. | 18.5 | 18.6 | 24.6 | 24.6 | 24.6 |
| Oiticica oil, drums, N.Y. | 17.5 | 19.2 | 25.2 | 25.2 | 25.2 |
| Tung oil, drums, N.Y. | 24.8 | 31.0 | 40.2 | 40.2 | 40.2 |
|  |  |  |  |  |  |
| Castor oil, No. 3, bbl., N.Y. | 12.8 | 11.0 | 13.8 | 13.8 | 13.8 |
| Castor oil, dehydrated, drums, carlots, N.Y. | 17.0 | 15.0 | 18.3 | 18.5 | 18.6 |
| Cod-liver oil, med. U.S.P. bbl., N.Y. (dol. per. bbl.) | 60.0 | 82.5 | 78.5 | 81.2 | 84.0 |
| Cod oil, Newfoundland, drums, N.Y. | --- | 10.0 | 11.3 | 11.3 | 11.5 |
| INDEX NUMBERS (1924-29 = 100) |  |  |  |  |  |
| Eight domestic fats and oils (1910-14 = 100) | 81 | 113 | 127 | 133 | 133 |
| Eight domestic fats and oils | 58 | 80 | 90 | 94 | 94 |
|  |  |  |  |  |  |
| All fats and oils (27 items) | 62 | 87 | 98 | 102 | 102 |
| Grouped by origin: |  |  |  |  |  |
| Animal fats | 57 | 79 | 84 | 89 | 89 |
| Marine animal oils | 90 | 107 | 126 | 126 | 126 |
| Vegetable oils, domestic | 67 | 98 | 128 | 130 | 130 |
| Vegetable oils, foreign | 88 | 128 | 160 | 161 | 160 |
| Grouped by use: |  |  |  |  |  |
| Butter | 60 | 79 | 78 | 85 | 85 |
| Butter, seasonally adjusted | 66 | 86 | 76 | 89 | 93 |
| Lard | 43 | 72 | 97 | 97 | 96 |
| Food fats, other | 65 | 111 | 142 | 142 | 142 |
| Soap fats | 62 | 101 | 128 | 128 | 128 |
| Drying oils | 99 | 107 | 134 | 140 | 140 |
| Miscellaneous oils | 101 | 93 | 114 | 114 | 114 |

Prices compiled from Oil, Paint and Drug Reporter, The National Provisioner, and reports of the Agricultural Marketing Administration and Bureau of Labor Statistics. Prices quoted include excise taxes and duties where applicable. Index numbers for earlier years beginning 1910 are given in Technical Bulletin No. 737 (1940) and The Fats and Oils Situation beginning December 1940.

1/ Three-cent processing tax added to price as originally quoted.

## THE FATS AND OILS SITUATION

### Summary

A slackening of demand, the first sign of weakness in several months, was noted in May and early June in wholesale markets for fats and oils. With maximum wholesale and retail prices now in effect, there is little incentive for dealers and industrial and institutional consumers to maintain inventories of finished goods beyond normal needs. Some liquidation of excess inventories of finished fats and oils apparently is taking place, with a consequent decline in sales by manufacturers.

The current reduction in wholesale purchases may result in a smaller factory consumption of primary fats and oils in the second quarter of 1942 than in the first. But with consumer purchasing power expected to rise still further during the year and with maximum prices in effect, a high rate of retail purchases of goods manufactured from fats and oils is in prospect. Hence the rate of factory operations may be increased in the second half of the year. In the absence of Government restrictions, total domestic disappearance of primary fats and oils in 1942 probably will equal or exceed the 11 billion pound mark reached in 1941.

Purchases for lend-lease shipment will add to requirements for fats and oils. According to present indications, more than 1 billion pounds will be purchased for this purpose by the Department of Agriculture this year. Purchases in 1943 are likely to be even larger, although needs may be modified by war developments.

About 2,310 million pounds of fats and oils, including refining residues or "foots," were used in the manufacture of soap in 1941, 25 percent more than in 1940, the previous peak year. Consumption of soap was

unusually high in 1941, but stocks of soap held by dealers and consumers apparently were built up to larger-than-normal levels as a result of rising prices. In 1942, supplies of coconut, palm, and palm-kernel oils available for the manufacture of soap will be greatly reduced, but production of inedible tallow and greases will be considerably larger than in 1941. Actual consumption of soap is likely to be even greater than in 1941, but part of the requirements may be filled from stocks on hand.

-- June 16, 1942

## REVIEW OF RECENT DEVELOPMENTS

BACKGROUND.- Prices of fats and oils, which were unusually low in 1939 and 1940, advanced sharply in the first half of 1941, reflecting a tight shipping situation for immported materials, marked improvement in domestic demand, and Government purchases of lard for export. Prices tended to level off during the second half of 1941, partly because of a temporary improvement in shipping and partly because of price-control measures. In the first quarter of 1942, however, further advances were made, notably by lard and linseed oil. Maximum wholesale prices for fats and oils were first established on December 13, 1941. On January 2, 1942, the maximum price schedule was revised upward. On February 4, a further increase in the maximum price of lard was made, and the ceiling on linseed oil was removed. Effective May 18, ceiling prices were established on retail prices of fats and oils, except butter and linseed oil, at highest prices charged during March 1942.

### Prices of Fats and Oils Mostly Unchanged in May; Oil Meals and Oilseeds Decline

The index number of wholesale prices of 27 leading fats and oils stood at 102 percent of the 1924-29 average in May, compared with 102 in April and 87 in May 1941. Prices of most fats and oils continued at or near ceiling levels during May. Prices of butter and linseed oil, which are not subject to price ceilings, averaged nearly the same in May as in April. The price of butter declined, however, from 38.75 cents per pound (92-score, Chicago) at the beginning of the month to 36.5 cents at the end of the month, and early in June it dropped to 36 cents, the level at which it is being supported by the Department of Agriculture. Slight declines also appeared toward the end of May and in early June in the prices of lard, linseed oil, and semi-refined cottonseed oil.

Oilmeal prices declined in May. Prices of soybeans and flaxseed also declined slightly, largely because of the decline in meal prices.

The export price of flaxseed at Buenos Aires, which is fixed by the Argentine Grain Board, was reduced approximately 3 cents a bushel in May, as the decline in the Minneapolis market and increases in shipping costs had left the previous quotation out of line with prices in this country, the only large market remaining for South American flaxseed. The Argentine Grain Board apparently is endeavoring to fix the price of flaxseed at Buenos Aires in such a way that, delivered and duty paid in eastern markets, it will be slightly under the price of domestic seed. During May price quotations for castor beans dropped from $100 to $75 per long ton, c. & f., New York, reflecting the availability of new-crop supplies in Brazil.

## Distributor Buying Reduced, but Consumer Demand Continues to Strengthen

A slackening of demand in wholesale markets for fats and oils was reported in May and early June. Actual price declines were few and slight, but buyers were less active. Fears of downward revisions of price ceilings apparently influenced buyers of some commodities, but the fixing of maximum wholesale and retail prices appears to have had a more important and general effect. With the rising trend in retail prices halted, dealers and other buyers are no longer under an incentive to build up inventories or to maintain stocks at levels above normal requirements of their business operations. The reduced buying noted in wholesale markets apparently reflected a tendency of dealers and others to reduce inventories.

Consumer demand, however, continues to strengthen. In May 1942, total national income payments were 20 to 25 percent greater than average monthly payments in 1941, and a further increase is expected as the conversion of industry from civilian to military production reaches completion. Consumers' expenditures for finished products made from fats and oils, such as soap, lard, margarine, and shortening, may be expected, therefore, to be considerably greater in 1942 than in 1941; and with maximum prices now in effect at the retail level, quantities purchased by consumers will tend to increase in about the same proportion as expenditures for such goods.

Factory consumption of primary fats and oils may be smaller in the second quarter of 1942 than in the first, reflecting smaller purchases of finished products by distributors. But it will probably increase again in the second half of the year as the effect of large purchases by consumers is reflected back through distributors to manufacturers. Total factory consumption of primary fats and oils in 1942, in the absence of Government restrictions, may be expected to equal or exceed the 11 billion pound mark established in 1941.

## Government Buying of Fats and Oils for Lend-Lease Accelerated

Purchases of lard and other fats and oils by the Agricultural Marketing Administration, largely for lend-lease export to the United Nations, were materially increased in April and May. Beginning in March last year, purchases, mostly lard, averaged 53 million pounds monthly through 1941. From January through March 1942, purchases averaged 60 million pounds monthly, with lard making up more than 80 percent of the total. The monthly purchase rate in April and May averaged 118 million pounds, 75 percent of which was lard, and the balance largely linseed oil, margarine, and butter, with small quantities of edible tallow, vegetable salad oil, shortening, and fish-liver oil (see table 2).

In 1941, total purchases of fats and oils amounted to 330 million pounds. Purchases in 1942 through May amounted to 416 million pounds. Present indications are that more than 1 billion pounds will be purchased this year. In 1943, purchases probably will be even greater. Termination of the war in 1943 or 1944, or later, would not necessarily be followed by an immediate reduction in the purchase program, as it is likely that large shipments of fats and oils will be made to continental European countries after hostilities cease. Continental Europe as a whole is now at least one-third short of its normal fat requirements, with the deficiency especially marked in the occupied countries.

In addition to fats and oils, nearly 27 million pounds (450,000 bushels) of soybeans, equivalent to about 4 million pounds of oil, were purchased by the Agricultural Marketing Administration from March 1941 through May 1942. Approximately 6 million pounds of shelled peanuts, equivalent to about 2.5 million pounds of oil, also were purchased in that period.

## Maximum Price of Packers' Refined Lard Reduced

Maximum prices of refined lard for sale by processors (except in export boxes) were revised from the highest prices charged in March, as provided in the General Maximum Price Regulation recently issued by the Office of Price Administration, to the highest prices charged in February. The change became effective June 8 under Amendment No. 5 to Revised Price Schedule No. 53. At the same time, maximum prices for commercial running lots of lard, f.o.b. Chicago, were revised upward to the following levels: Loose lard, 11.90 cents per pound; leaf lard, raw, 12.40 cents; prime steam lard in tierces (cash lard and futures), 12.90 cents; steam rendered pork fat, 11.90 cents; refined lard in export boxes, 13.25 cents (no change).

Previously, the ceiling on loose lard had been 11.425 cents per pound, and the ceiling on prime steam lard in tierces had been 12.695 cents per pound. Thus the maximum price of loose lard was raised nearly 0.5 cent and the maximum price of tierce lard about 0.2 cent per pound. The spread between maximum prices of loose and tierce lard is now 1 cent, the approximate cost of tiercing.

The main purpose of the revisions was to permit profitable handling of refined lard by chain stores, which reported that operating margins based on highest March prices for lard purchased and sold were less than normal. Maximum prices for refined lard sold by wholesale distributors other than packers remain unchanged at highest March levels, but in many cases competition may force prices charged by wholesalers down in line with prices charged by packers.

Although precise data as to actual ceiling prices for refined lard are not available, it is estimated that the maximum price charged by packers was reduced not more than 0.5 cent per pound. This reduction was partly offset by the increase in the maximum price of prime steam lard in tierces of 0.2 cent per pound. However, packers normally sell about 90 percent of their lard in refined form, and the net reduction in the maximum price charged by packers for all lard sold amounts to perhaps 0.4 cent per pound. If not absorbed by packers, this would mean a reduction in the price of live hogs, on the basis of recent lard yields of about 13 percent, of approximately 5 cents per 100 pounds. The farm price of hogs in mid-May, at $13.28 per 100 pounds, was 120 percent of the parity price.

## Specific Maximum Prices for Oleo Stock, Oil, and Stearine Established

Specific maximum prices for oleo stock, oleo oil, and oleo stearine to all classes of buyers for any purpose were established June 9 by the Office of Price Administration under Amendment No. 4 to Revised Price Schedule No. 53. The maximum prices, f.o.b. Chicago (used drums or barrels), in cents per pound, are as follows: Extra oleo stock, 12.75; prime oleo stock, 12.50; extra oleo oil, 13.04; prime oleo oil, 12.75; prime oleo stearine, 10.61. Usual or normal differentials for location, grade, quantity, and type of purchaser, above or below the maximum prices specified, continue to apply. Oleo stock is a high-grade tallow, from which oleo oil and oleo stearine are produced by expression. Oleo oil and oleo stearine are used extensively in the bakery field, and in the manufacture of margarine and shortening.

## Fat Recovery Programs Planned

Two programs to increase the supply of fats may be launched in the near future. One would be in the nature of uniform meat trimming regulations, with the object of obtaining an increased take-off of animal fats in meat-packing establishments. The other would involve the salvaging of waste household fats and greases in areas where adequate rendering facilities are available.

Various estimates have been made of the increase in fat production possible under these two programs. Potentially, a billion pounds or more of fat might be recovered annually for food and industrial uses in addition to the fats and oils now produced in meat-packing plants or recovered from butcher's trimmings and industrial wastes. In practice, however, the increase in the recovery of fats may be considerably less because of the necessity of leaving certain trimmable fats on meat cuts and carcasses to protect the meat from deterioration and to preserve its palatability, and because of possible overcrowding of rendering facilities. Nevertheless, substantial additions to the domestic supply of fats probably could be obtained through the operation of the two programs. Increased output of lard and edible tallow would be of material assistance in meeting lend-lease requirements, and the increased production of inedible tallow and greases would tend to offset the loss of imported industrial fats and oils, particularly in the manufacture of soap and glycerin. Soap, or fatty acids suitable for the manufacture of soap, and glycerin, also are required for lend-lease export.

## Recent Orders Issued by the War Production Board

In Amendment No. 6 to General Imports Order M-63, effective May 22, the War Production Board placed additional fats, oils, and oil-bearing materials on list A of strategic materials which may not be imported, except by an agency of the Federal Government, without written authorization from the War Production Board. The following fats, oils, and oil-bearing materials are now on list A: Beef and mutton tallow, including oleo stock; babassu nuts or kernels; babassu nut oil; cashew nut-shell oil; castor beans; castor oil; coconut oil; cod-liver oil; cod oil; cohune nuts or kernels; copra; corn oil; cottonseed oil; flaxseed; hempseed; linseed oil; murumuru nuts or kernels; neatsfoot oil; oiticica oil; ouricury nuts or kernels; ouricury oil; palm oil; peanut oil; rapeseed; rapeseed oil; rubber seed; rubber seed oil; sesame seed; shark oil and shark-liver oil; sperm oil; sunflower seed; sunflower oil; tucum nuts or kernels; tung oil; wool grease; and whale oil.

Amendment No. 1 to General Preference Order M-40, issued May 16, forbids any person to use, process, deliver, or accept delivery of sperm oil except to import the oil into the United States or to fill Army, Navy, or Maritime Commission contracts or sub-contracts, without first obtaining specific authorization from the War Production Board. Allocations are made monthly by the Board. The amendment also places special restrictions on the use of sperm oil in the production of lubricating oils and greases.

Curtailment of world whaling activities has made drastic conservation of sperm oil necessary. The most important use for sperm oil in war production is as a lubricant for breaking in motors. It is also used as a lubricant for making machine tools, for rifling guns, in tanning leather, and as a finishing agent in textile manufacture.

The restrictions imposed on the use of cashew nut-shell oil by General Preference Order M-66 have been modified by Amendment No. 1, issued May 14. The amendment permits use of this oil, without regard to preference ratings, in the manufacture of brake linings and other friction elements ordered by the Army, Navy, Coast Guard, or Maritime Commission or to be installed on aircraft of any kind. But the use of the oil in the manufacture of brake linings for other purposes is forbidden except under special circumstances. The oil may be used, as before, to fill orders with a high preference rating for molding resins for insulating aviation electrical parts, or for resin solutions for impregnating electrical coils. Cashew nut-shell oil is an inedible industrial oil, normally imported in small quantities from India.

## Food Requirements Committee Established

A Food Requirements Committee was established June 4 within the War Production Board under the chairmanship of the Secretary of Agriculture. Other agencies represented on the committee are the State, War, and Navy Departments, Office of Lend-Lease Administration, Board of Economic Warfare; and the Divisions of Industry Operations, Materials, and Civilian Supply of the War Production Board.

To carry out the decisions of the committee, specific functions have been assigned to different agencies. The Department of Agriculture will be responsible for: (1) Increasing or limiting domestic agricultural production; (2) the earlier stages of food production; (3) the importation of foods and agricultural materials from which foods are derived; and (4) the formulation of programs for conservation of critical foods or agricultural materials from which foods are derived. The Division of Industry Operations of the War Production Board will be responsible for the later stages of food production, such as baking and the manufacture of candy and soft drinks. The Materials Division of the War Production Board will be responsible for the processing of nonfood products derived from agricultural materials which are a source of food, for example, soap.

The Department of Agriculture already has undertaken a "Food-for-Victory" program which provides, among other things, for a marked increase in the production of vegetable oil crops and animal fats and oils. The Department, through the Agricultural Marketing Administration, also is engaged in an extensive food purchase program for the purpose of supplying our allies with large quantities of such needed products as pork, spray process dried milk, cheese, and lard. Under the new authority delegated to the Department, the Commodity Credit Corporation recently has undertaken foreign purchases and importation of "food and agricultural materials from which foods are derived," including fats, oils, and oilseeds, as the sole Government agency in this field, working in cooperation with the Board of Economic Warfare and other departments and agencies. The purpose of this program is to ensure maximum importation of food materials in short supply in this country, consistent with other needs for imported materials and with the availability of shipping facilities. In connection with the import program, the President, on May 30, under emergency powers, authorized the Secretary of Agriculture, among others, "to make emergency purchases of war material abroad" .... provided, "that when such purchases are made abroad, this material shall be admitted free of duty." However, if this authority is used, it is not expected to have any depressing effect on domestic prices of fats and oils.

## THE SOAP AND GLYCERIN SITUATION IN 1941 AND 1942

### Demand for Soap Fats in 1941 and 1942 at High Level

Sharply higher industrial activity and consumer income in 1941, along with rising prices, resulted in a heavy demand for soap, mainly for immediate consumption but in part for the purpose of building up inventories. Reflecting this demand and the difficulty of obtaining raw materials from abroad, prices of fats and oils used in the manufacture of soap rose rapidly during the year. The price of inedible tallow at Chicago advanced from 4.2 cents per pound in December 1940 to 8.5 cents in December 1941, and the price of crude coconut oil, f.o.b. Pacific Coast, from 5.5 cents to nearly 10 cents. The index number of wholesale prices of fats and oils used in soap rose from 61 to 121 percent of the 1924-29 average during the same period. Factory consumption of the fats and oils used in the manufacture of soap, including refining residues or "foots," was materially increased in 1941, amounting to 2,310 million pounds, 25 percent more than in 1940; in addition, 126 million pounds of rosin were used, 31 percent more than in 1940.

In 1942, with industrial activity and consumer income still higher than in 1941, and with maximum prices for soap in effect, consumption of soap may be expected to be even greater than in 1941. However, the full extent of the increase may not be felt by soap makers because existing inventories held by dealers and large consumers may be drawn upon to some extent to meet requirements. Prices of the primary fats and oils used for soap have been placed under ceilings. The index number for these prices stood at 128 percent of the 1924-29 average in May 1942 compared with 121 percent last December, but no further rise is immediately in prospect.

## Proportion of Major Ingredients Little Changed in 1941

Marked increases occurred in 1941 over 1940 in the quantities of inedible tallow and greases, palm oil, coconut oil, cottonseed-oil foots and other oil foots, and soybean oil used in the manufacture of soap (see table 3). As available supplies of the various principal materials were plentiful, soap makers were able to use about the same proportions of slow-lathering oils, quick-lathering oils, soft oils, and rosin in 1941 as in 1940 - roughly 65, 20, 10, and 5 percent, respectively. The proportion of tallow rose from 40 percent of the total saponifiable materials used in 1940 to 43 percent in 1941, while the proportion of whale and fish oils fell from 6 percent to 3 percent. No other notable changes occurred in the proportions of individual oils used (see table 4). About 27 percent of the fats and oils used in 1941 was of foreign origin, compared with 28 percent of the total in 1940.

## Supplies of Quick-Lathering Oils Much Reduced in 1942

Marked changes will occur in 1942 in the proportions of the various types of oils used by soap makers. Coconut oil, the principal quick-lathering oil, and copra, the raw material from which it is expressed, can no longer be imported from the Philippine Islands, normally our chief source of supply. Some coconut oil and copra from other sources probably will be available, and imports of babassu kernels and other varieties of palm kernels from Brazil may be increased. Also, as the War Production Board has restricted the use of most of the quick-lathering oils to processes in which a high percentage of the glycerin content is recovered, these oils will be diverted from edible uses to soap. Nevertheless, the total supply of quick-lathering oils available for soap making will be much smaller in 1942 than in 1941.

The outlook for supplies of slow-lathering oils is more favorable. Although imports of palm oil will be greatly reduced because of our dependence on the Dutch East Indies for most of our supplies, domestic production of inedible tallow and greases will be more than sufficient to offset the reduction in the quantity of palm oil available for soap.

The proportion of soft oils used in making soap has declined in recent years. These oils constituted 8.8 percent of total saponifiable materials used by the industry in 1941, compared with 9.1 percent in 1940 and an average of 13.5 percent from 1935 to 1939. Production of cottonseed oil foots, the principal item among the soft oils, probably will be smaller in 1942 than in 1941, but production of soybean and linseed oils will be large in comparison with requirements for making soap. However, these latter oils are extensively used for other purposes, and their prices are too high relative to tallow and grease prices to permit hydrogenation and use in the manufacture of hard soap on any wide scale.

## Domestic Production of Glycerin Increased in 1941

Most glycerin is produced as a byproduct of soap. It is a constituent of all fats and oils, where it occurs in chemical combination with fatty acids. During the soap-making process, which consists in treating a mixture of fats and oils with an alkali such as soda lye, this combination is broken and the glycerin is set free. In the production of hard soap, the glycerin (dissolved in water) settles to the bottom of the vat in which the soap is made and can be recovered. Large soap makers normally recover most of the glycerin produced, but smaller factories frequently do not find it profitable to do so unless glycerin prices are high. A small part of the glycerin produced in the United States is recovered by "fat splitters," who separate a fat or oil into its two components, glycerin and fatty acids, without producing soap in the process. The fatty acids can be used in the place of fats and oils to make soap, but they also have other important industrial uses. Other methods of producing glycerin exist but they are too costly, at least, in normal times, to compete with production of glycerin by the soap makers and fat splitters.

With production of soap the highest on record in 1941, production of glycerin was also at a new peak, reaching 224 million pounds (crude basis), according to reports of the Bureau of the Census. This was 24 percent more than was produced in 1940, the previous peak year, and 51 percent greater than average production in the years 1935-39. Since April 1 the use of coconut oil and other quick-lathering oils, as well as palm oil not used by the tin and terne plate industry, has been restricted largely to processes that recover a high percentage of the glycerin yield from these oils. Despite this conservation measure, however, production of glycerin probably will be somewhat smaller in 1942 than in 1941 because of the reduction in supplies of quick-lathering oils, which yield about 25 percent more glycerin per pound of oil used, on the average, than other fats and oils.

## Civilian Uses of Glycerin to be Restricted in 1942

Glycerin is extensively used in the manufacture of explosives, in the preparation of tobacco for smoking and chewing, and in the manufacture of synthetic resins and ester gums, which are used in varnish. Glycerin is also used in smaller quantities in cellophane, drugs and pharmaceuticals, paper, food, cosmetics, and adhesives. In addition to its military uses, considerable quantities of nitro-glycerin explosives of the industrial type are required in the United States for mining and construction. Nitroglycerin explosives are widely used in Europe for military purposes.

The demand for glycerin was very strong in 1941. Domestic disappearance reached a new record, and the price rose rapidly during the year, reaching 16.75 cents per pound in September (soap-lye, 80-percent basis, delivered, tanks, New York), compared with 7.25 cents in January. Effective October 31, a ceiling of 11.50 cents per pound was imposed.

To conserve supplies for essential war needs, and to meet lend-lease requirements, the War Production Board, on March 30, 1942, issued an order prohibiting the use of glycerin in the manufacture of anti-freeze preparations and limiting its use by any manufacturer or processor for any other purpose, except to fill defense orders or to process or manufacture health supplies, to 70 percent of the average monthly rate of consumption in 1941.

Table 2.- Purchases of fats and oils by the Agricultural Marketing Administration, by months, March 15, 1941-May 30, 1942

| Year and month | Lard | Other fats and oils | | | | | | | | | Total, lard and other fats and oils |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Butter | Oleo oil | Tallow, edible | Fish-liver oil - vitamin A | Linseed oil 1/ | Vegetable salad oil | Oleo-margarine | Shortening | Total | |
| | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. |
| 1941 | | | | | | | | | | | |
| Mar. 2/ | 37,507 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 37,507 |
| Apr. | 31,258 | 66 | --- | --- | --- | --- | --- | --- | --- | 66 | 31,324 |
| May | 64,812 | --- | --- | --- | --- | --- | --- | 1,120 | --- | 1,120 | 65,932 |
| June | 19,442 | --- | --- | --- | 42 | --- | --- | --- | --- | 42 | 19,484 |
| July | 17,837 | --- | --- | --- | 41 | --- | --- | --- | --- | 41 | 17,878 |
| Aug. | 28,124 | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | 28,125 |
| Sept. | 21,308 | --- | --- | --- | 23 | --- | --- | --- | --- | 23 | 21,331 |
| Oct. | 51,048 | --- | 896 | --- | --- | --- | --- | --- | --- | 896 | 51,944 |
| Nov. | 37,329 | --- | 890 | --- | --- | --- | --- | --- | --- | 890 | 38,219 |
| Dec. | 17,544 | 84 | 246 | --- | --- | --- | --- | 9 | --- | 339 | 17,883 |
| Total, Mar.-Dec. | 326,209 | 150 | 2,032 | --- | 107 | --- | --- | 1,129 | --- | 3,418 | 329,628 |
| 1942 | | | | | | | | | | | |
| Jan. | 67,241 | --- | --- | --- | 7 | 22,400 | --- | --- | --- | 22,407 | 89,648 |
| Feb. | 41,925 | 3,188 | 632 | --- | 27 | --- | --- | --- | --- | 3,846 | 45,771 |
| Mar. | 37,297 | 5,136 | --- | 760 | 127 | --- | --- | --- | 1,344 | 7,367 | 44,664 |
| Apr. | 106,502 | 4,968 | --- | 1,757 | 154 | --- | --- | 15,949 | 275 | 23,102 | 129,604 |
| May 3/ | 72,132 | 7,534 | 480 | 1,460 | 63 | 22,290 | 2,283 | --- | --- | 34,109 | 106,241 |
| Total, Jan.-May | 325,098 | 20,825 | 1,112 | 3,977 | 377 | 44,690 | 2,283 | 15,949 | 1,619 | 90,830 | 415,928 |
| Grand total | 651,307 | 20,975 | 3,144 | 3,977 | 484 | 44,690 | 2,283 | 17,078 | 1,619 | 94,248 | 745,556 |

Compiled from reports of the Agricultural Marketing Administration. Totals are computed from unrounded numbers

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1/ Edible and inedible.

2/ March 15-31.

3/ Four weeks ended May 30, except for linseed oil, 5 weeks.

JUNE 19
1942

## Soap: Fats, oils, and rosin used in manufacture, United States, 1937-41

| Item | 1937 | 1938 | 1939 | 1940 | 1941 |
|---|---|---|---|---|---|
| | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. |
| Hard oils (tallow class): | | | | | |
| Slow lathering - | | | | | |
| Tallow, inedible | 613,509 | 702,267 | 785,041 | 786,456 | 1,057,303 |
| Whale and fish oils 1/ | 189,009 | 145,954 | 166,483 | 107,911 | 76,312 |
| Greases | 94,247 | 96,356 | 120,856 | 256,886 | 310,487 |
| Palm oil | 141,358 | 91,642 | 102,146 | 84,934 | 129,871 |
| Tallow, edible | 143 | 332 | 418 | 657 | 4,826 |
| Oleostearine | 321 | 240 | 278 | 549 | 70 |
| Lard | --- | 1 | 50 | 645 2/ | 89 |
| Total | 1,038,587 | 1,036,792 | 1,175.272 | 1,238,038 | 1,578,958 |
| Quick lathering - | | | | | |
| Coconut oil | 252,241 | 342,982 | 388,912 | 396,857 | 484,124 |
| Palm-kernel oil | 111,514 | 29,498 | 3,657 | 197 | 1,113 |
| Babassu oil | 14,308 | 8,289 | 37,633 | 41.221 | 29,753 |
| Total | 378,063 | 380,769 | 430,202 | 438,275 | 514,990 |
| Soft oils: | | | | | |
| Cottonseed-oil foots and other foots 3/ | 183,000 | 208,000 | 156,000 | 130,000 | 166,000 |
| Olive oil, sulphured and inedible | 18,874 | 16,312 | 20,507 | 16,585 | 10,584 |
| Soybean oil | 10,274 | 10,897 | 11,177 | 17,612 | 24,737 |
| Cottonseed oil | 8,414 | 2,883 | 1,061 | 2,971 | 3,010 |
| Corn oil | 2,392 | 2,514 | 4,441 | 3,638 | 4,948 |
| Castor oil | 2,123 | 1,810 | 946 | 1,225 | 1,976 |
| Linseed oil | 1,359 | 1,455 | 1,780 | 1,489 | 2,278 |
| Peanut oil | 820 | 545 | 805 | 387 | 597 |
| Sesame oil | 2,944 | 302 | 14 | 38 | 304 |
| Oleo oil | 74 | 119 | 67 | 127 | 189 |
| Rape oil | 981 | 55 | 2 | 49 | 5 |
| Olive oil, edible | 21 | 31 | 54 | 130 | 84 |
| Neatsfoot oil | 16 | 20 | 11 | 19 | 35 |
| Perilla oil | 2 | --- | 1 | --- | --- |
| Other 4/ | 10,812 | 14,031 | 7,364 | 2,051 | 1,162 |
| Total | 242,106 | 258,974 | 204,230 | 176,321 | 215,909 |
| Total fats and oils | 1,658,756 | 1,676,535 | 1,809,704 | 1,852,634 | 2,309,857 |
| Rosin 5/ | 136,410 | 117,464 | 117,507 | 95.633 | 6/125,684 |
| Total saponifiable materials | 1,795,166 | 1,793,999 | 1,927,211 | 1,948,267 | 2,435,541 |

Compiled as follows: Fats and oils, Bureau of the Census, Animal and Vegetable Fats and Oils; rosin, Naval Stores Research Division, Bureau of Agricultural Chemistry and Engineering, United States Department of Agriculture.

1/ Includes whale oil, and herring, sardine, menhaden, and other fish oils.

2/ Includes 1,000 pounds of rendered pork fat.

3/ Estimated, includes approximately 88 percent of the item "loss, including oil in foots".

4/ Reported as "other vegetable oils".

5/ The rosin season extends from April of one year through March of the next year. Data are placed in the calendar year in which most of the season occurs.

6/ Preliminary.

Table 4.- Soap: Fats, oils, and rosin as a percentage of total saponifiable materials used in manufacture, United States, 1932-41

| Item | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | 1939 | 1940 | 1941 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. | Pct. |
| Hard oils (tallow class): | | | | | | | | | | |
| Slow lathering - | | | | | | | | | | |
| Tallow, inedible | 33.1 | 32.0 | 37.7 | 40.4 | 38.2 | 34.2 | 39.1 | 40.7 | 40.4 | 43.4 |
| Whale and fish oils | 5.9 | 6.1 | 5.6 | 8.4 | 9.3 | 10.5 | 8.1 | 8.6 | 5.5 | 3.1 |
| Grease | 8.7 | 7.9 | 8.1 | 6.0 | 5.7 | 5.3 | 5.4 | 6.3 | 13.2 | 12.8 |
| Palm oil | 10.1 | 11.8 | 8.8 | 5.3 | 4.5 | 7.9 | 5.1 | 5.3 | 4.4 | 5.3 |
| Other | .2 | .2 | .1 | .1 | 1/ | 1/ | 1/ | 1/ | 1/ | .2 |
| Total | 58.0 | 58.0 | 60.3 | 60.2 | 57.7 | 57.9 | 57.7 | 60.9 | 63.5 | 64.8 |
| Quick lathering | | | | | | | | | | |
| Coconut oil | 21.3 | 20.3 | 19.4 | 14.0 | 17.8 | 14.1 | 19.1 | 20.2 | 20.4 | 19.9 |
| Palm-kernel oil | .2 | .4 | .9 | 2.3 | 1.5 | 6.2 | 1.6 | .2 | 1/ | .1 |
| Babassu oil | --- | --- | --- | --- | .5 | .8 | .5 | 2.0 | 2.1 | 1.2 |
| Total | 21.5 | 20.7 | 20.3 | 16.3 | 19.8 | 21.1 | 21.2 | 22.4 | 22.5 | 21.2 |
| Soft oils | | | | | | | | | | |
| Cottonseed-oil foots and other foots | 9.2 | 9.1 | 8.0 | 11.6 | 10.6 | 10.2 | 11.6 | 8.1 | 6.7 | 6.8 |
| Olive oil sulphured and inedible | 2.0 | 2.1 | 1.8 | 2.0 | 1.5 | 1.1 | .9 | 1.1 | .8 | .4 |
| Soybean oil | .3 | .3 | .1 | .2 | .3 | .6 | .6 | .6 | .9 | 1.0 |
| Cottonseed oil | .2 | .4 | .2 | .1 | .1 | .5 | .2 | .1 | .2 | .1 |
| Other | .9 | 1.1 | 1.2 | 1.1 | 1.4 | 1.0 | 1.3 | .7 | .5 | .5 |
| Total | 12.6 | 13.0 | 11.3 | 15.0 | 13.9 | 13.4 | 14.6 | 10.6 | 9.1 | 8.8 |
| Total fats and oils | 92.1 | 91.7 | 91.9 | 91.5 | 91.4 | 92.4 | 93.5 | 93.9 | 95.1 | 94.8 |
| Rosin | 7.9 | 8.3 | 8.1 | 8.5 | 8.6 | 7.6 | 6.5 | 6.1 | 4.9 | 5.2 |
| Total saponifiable materials | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

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1937-41, based on data in table 3; data for earlier years are given in The Fats and Oils Situation, August 1937.

1/ Less than 5 percent.

1942

### Table 5.- Prices of specified oil-bearing materials, May 1940 and 1941, March-May 1942

| Item | Unit | May 1940 | May 1941 | 1942 Mar. | 1942 Apr. | 1942 May |
|---|---|---|---|---|---|---|
| | | Dollars | Dollars | Dollars | Dollars | Dollars |
| Castor beans, Brazilian, shipment, C.&f., New York | Long ton | 64.60 | 65.60 | 95.25 | 96.50 | 90.00 |
| Cottonseed, U.S. farm price | Short ton | 26.69 | 27.67 | 44.18 | 43.90 | 43.99 |
| Flaxseed, No. 1, Minneapolis ............... | Bu. | 1.97 | 1.87 | 2.59 | 2.62 | 2.58 |
| Flaxseed, U.S. farm price . | " | 1.75 | 1.68 | 2.37 | 2.41 | 2.43 |
| Peanuts (for nuts and oil), U.S. farm price .......... | 100 lb. | 3.66 | 3.65 | 6.03 | 6.25 | 6.30 |
| Peanuts for oil, delivered designated agencies ...... | " " | --- | --- | 4.05 | 4.10 | 4.11 |
| Soybeans, No. 2 Yellow, Chicago .................. | Bu. | 1.00 | 1.32 | 1.92 | 1.83 | 1.80 |
| Soybeans, U.S. farm price . | " | .96 | 1.19 | 1.79 | 1.76 | 1.73 |

Compiled from Oil, Paint and Drug Reporter, Daily Trade Bulletin (Chicago), Daily Market Record (Minneapolis), and reports of the Bureau of Agricultural Economics.

### Table 6.- Price per ton of specified oilseed meals, May 1940 and 1941, March-May 1942

| Item 1/ | May 1940 | May 1941 | 1942 Mar. | 1942 Apr. | 1942 May |
|---|---|---|---|---|---|
| | Dollars | Dollars | Dollars | Dollars | Dollars |
| Copra meal, Los Angeles .............. | 20.00 | 35.70 | 51.10 | 50.00 | 49.94 |
| Cottonseed meal, 41 percent protein, Memphis ............................ | 29.40 | 25.10 | 37.00 | 35.25 | 34.31 |
| Cottonseed meal, 41 percent protein, Chicago ............................ | 36.40 | 30.80 | 42.60 | 41.80 | 40.50 |
| Linseed meal, 34 percent protein, Minneapolis ........................ | 30.25 | 27.10 | 42.00 | 37.50 | 36.00 |
| Linseed meal, 32 percent protein, New York .......................... | 31.60 | 24.55 | 34.40 | 31.75 | 31.50 |
| Peanut meal, 45 percent protein, f.o.b. southeastern mills ......... | 29.44 | 23.28 | 45.35 | 46.75 | 46.19 |
| Soybean meal, 41 percent protein, Chicago ............................ | 28.65 | 28.10 | 44.85 | 41.00 | 38.30 |

Compiled from records of the Agricultural Marketing Administration.

1/ Bagged, carlots.

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